

CLAIMS

1. In a transceiver having a power amplifier and a pair of up-converter mixers, an improved power ramping method comprising:

5 switching on the power amplifier after an end of a prior packet reception period; and

ramping modulation signals supplied to the up-converter mixers upon initiation of a new packet transmission.

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2. The method as described in Claim 1 wherein the modulation signals are in-phase and quadrature-phase signals.

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3. The method as described in Claim 2 wherein the modulation signals are ramped by monotonically scaling a set of digital words representing the in-phase and quadrature-phase signals.

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4. The method as described in Claim 2 wherein the modulation signals are ramped by applying an analog ramping signal to the in-phase and quadrature-phase signals.

5. The method as described in Claim 1 further including the step of delaying initiation of the new packet transmission for a given time following the end of the prior packet reception period.

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6. The method as described in Claim 1 wherein initiation of the new packet transmission begins with a preamble.

10 7. The method as described in Claim 1 wherein the ramping step occurs over a given time period.

8. A transceiver, comprising:

a receiver;

15 a transmitter including a power amplifier, and a pair of up-converter mixers;

a frequency synthesizer including a voltage controlled oscillator (VCO);

20 a controller for isolating the power amplifier and the VCO, comprising:

means for switching on the power amplifier after an end of a prior packet reception period, and

25 means for ramping modulation signals supplied to the up-converter mixers upon initiation of a new packet transmission.

9. The transceiver as described in Claim 8 wherein the modulation signals are in-phase and quadrature-phase modulation signals.

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10. The transceiver as described in Claim 9 wherein the ramping means monotonically scales a set of digital words representing the in-phase and quadrature-phase signals.

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11. The transceiver as described in Claim 9 wherein the ramping means includes:

means for generating an analog ramping signal; and
means for applying the analog ramping signal to the

15 in-phase and quadrature-phase baseband signals.

12. The transceiver as described in Claim 11 wherein the means for applying is a multiplier.

20 13. The transceiver as described in Claim 8 that is compliant with the IEEE 802.11 standard.

14. A transceiver for use in a wireless local area network (WLAN), comprising:

a radio circuit including a power amplifier, a pair of up-converter mixers, and a frequency synthesizer;

a processor coupled to the radio circuit and including means for generating modulation signals that
5 are supplied to the up-converter mixers; and

a controller for switching on the power amplifier at an end of a prior packet reception period and for ramping the modulation signals supplied to the up-converter mixers upon initiation of a new packet transmission.

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15. The transceiver as described in Claim 14 wherein the controller monotonically scales a set of digital words representing modulation signals.

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16. The transceiver as described in Claim 14 wherein the controller includes:

means for generating an analog ramping signal; and
means for applying the analog ramping signal to the modulation signals.

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17. A power ramping method operative in a transmitter having a power amplifier, comprising:

turning off the power amplifier upon initiation of a packet reception;

upon completion of the packet reception, turning on the power amplifier; and

ramping modulation signals supplied to the power amplifier upon initiation of a new packet transmission.

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18. The power ramping method as described in Claim 17 wherein the modulation signals are in-phase and quadrature-phase signals.

10 19. The power ramping method as described in Claim 18 wherein the modulation signals are ramped by monotonically scaling a set of digital words representing the in-phase and quadrature-phase signals.

15 20. The power ramping method as described in Claim 17 wherein initiation of the new packet transmission begins with a preamble.

21. In a spread spectrum transceiver having a power amplifier and a pair of up-converter mixers, an improved power ramping method comprising:

switching on the power amplifier sufficiently in advance of a packet transmission; and

ramping modulation signals supplied to the up-converter mixers upon initiation of a new packet transmission.

5 22. A transceiver, comprising:

a receiver;

a transmitter including a power amplifier, and a pair of up-converting mixers;

a frequency synthesizer including a voltage
10 controlled oscillator;

a controller for isolating the power amplifier in advance of packet transmission; and

means for ramping modulation signals supplied to the up-converter mixers upon initiation of a new packet
15 transmission.

23. A transceiver as described in Claim 22, further comprising means for ramping down signals at the end of packet transmission.

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24. A transceiver as described in Claim 11, wherein the means for applying is a multiplier.

25. A power ramping method as described in Claim 17, further comprising turning off the power amplifier after ramping down of transmission power.

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